ARE THE UNITED STATES A NATION?

The Theory of Mr. John C. Hurd of Boston A learned but not well-digested book has recently been published in Boston on "The Theory of the National Existence, as Shown by the Action of the Government of the United States Since 1861" (Boston, Little, Brown & Co., 1881. Svo, 550 pp.). The author of this volume is John C. Hurd, LL. D., author of

The Law of Freedom and Bondage in the

Mr. Hurd, although he uses it himself objects to the term "theory" when applied to the secessionist or anti-secessionist view of the Pederal Constitution. As well as the present writer can comprehend his objection to the use of this term, he appears to regard it as unfortupata because a theory is a conclusion arrived at as a deduction from certain assumed or admitted principles; whereas, he says, the thing to be investigated, our national existence, is a "fact." has not a fact in the sense of an occurrence, but it is a result or conclusion derived from political arrangements and established institutions. Every one understands that when the opposite views of our Constitution which came into collision in consequence of the attempted secession of the Southern States are referred to as contrasted "theories," the term is used to signify a constitutional doctrine resuiting from one or another mode of reasoning upon historical occurrences and principles of constitutional law. The word "theory," when so applied, has the merit of convenience, and it

has not the element of the slightest tendency to

mislead anybody. It will be used throughout

As Mr. Hurd has bestowed a good deal of

this article.

attention upon the views expressed by me before, during, and since the late civil war, concerning the nature of the Constitution of the United States, it may not be inappropriate for me to state in my own way what I understand to have been the theory, or principle, on which the late civil war was legitimately conducted by the Government of the Union, and what I suppose to have been its legitimate results. Avoiding all partisan discussion, and avoiding also whatever might involve any sectional feeling, whether of the past or the present, I will in the first place state the theory on which, as I understand, the Constitution had always been administered prior to the year 1860, and which. as I read the constitutional history of the country, was held and accepted by the men who made and the people who adopted that great instrument. This theory regards the States which were represented in the convention of 1787 as free, sovereign, and independent political bodies, each possessed of all the attributes of sovereign, self-governing nations. A prior connection, in the nature of a league or confederation of States, existed between these nations when the convention of '87 assembled; but this league or confederation had not established, and was never designed to establish a government proper, with powers of legislation operating upon the individual inhabitants of the States. This was notoriously its great defect, and it was to remedy this defect that something very different was proposed and adopted. Now, it is in my view very unimportant to consider how far the people of the United States, prior to the confederation, were a nation, or had acted as such. The Revolutionary Congress, which was a kind of assembly of ambassadors or Commissioners of the thirteen revolted colonies, was a body which led a revolution, the purpose of which was to secure to each colony, that had practically become a State, independence of the grown of Great Britain. Undoubtedly this body, the Revolutionary Congress, did, in the external relations of the colonies or newly created States, act as the representative of a people composed of the inhabitants of the thirteen colonies or States; and, to a very limited extent, this body acted upon the internal relations of the colonies or States to each other. But in all its deliberations, determinations, and acts, whether in regard to foreign or internal affairs, it was always a Congress of sovereign States, always acted as the leader of a revolution in which the cooperation of all the States was essential to success, and never acted as the sovereign of one nation is authorized to act. When this body. the Revolutionary Congress, had given place to the Congress organized under the articles of confederation, all practical, as well as theoretical, existence of a nation composed of all the per of the United States was merged in a confederated league between independent States, constituting a representative body which could make requisitions upon the several States, but had no legislative, executive, or judicial powers by which it could enforce its requisitions or act upon individuals. This method of carrying on public affairs, in which the people of the several States had a common interest—this kind of defective national existence-it became necessary to discard after it had had a trial of four years. in which, whatever might have been its efficac; for the purposes of a revolutionary war, it began to break down as soon as peace had secured the

What, then, was to be substituted? How was a nationality, in an efficient sense, to be reached and made the foundation of a government proper, with the legislative, executive, and judicial attributes of a government? There were but two modes in which it could be done. Etther the whole people of the United States must be regarded as fused into one untion, and must proceed to establish such a government. monarchical, republican, limited, or unlimited. as they might choose to submit to, or the people of each State must be regarded as an independent and sovereign people, and must be asked to cede, transfer, or make over to a gov ernment proper, such portions of their political powers as they might see fit to part with, thus forming a nation for certain limited and defined purposes, and yet each State remaining a separate nation for all other purposes. The first of these two courses was entirely out of the question, because it would involve, on the part of the people of each State, a surrender of their right of self-government for all purposes whatever; a surrender which the people of no State would be willing to make. The second course was not impracticable, provided the fundamental principle could be agreed upon, that the new government for the limited nation should be supreme, and therefore effectually sovereign, in the exercise of all the legislative, executive, and judicial powers conferred upon it, and that the people of each State should remain in the sovereign exercise of all the powers of internal government which they did not cade or surrender by the ratifica-

independence of the several States.

tion of the proposed constitution. And here I am ied to remark that it is entirely unnecessary to consider the abstract question whether soveraignty is divisible, or whether the attributes or powers of sovereignty can be separated from one another. Some writers and | ants of the State, notwitstanding its ordinance publicists maintain that sovereignty is a unit. and that one part of it cannot, in the nature of things, be separated irrevocably from another part. They admit that one sovereign people can make a compact with another; but they say that from the nature of sovereignty there is always a locus penifentiar-a reserved right to with fraw from the compact. This depends entirely upon what the compact is. It is a practical question, to be solved upon the facts of the If a sovereign and independent people choose to say, " We, for ourselves and our posterity, by this instrument attested by our hands and seals, code and transfer to a government, which we hereby constitute over ourselves. certain of our powers of sovereignly," they have divided their sovereignty. A portion of it is given away, and the rest remains in their hands. The instrument which they have exequied is something more than a compact or of civil war had occurred, was entirely consisting the between nations, dissoluble upon the ont with the employment of all the laws and principles and in the modes in which trenties may be alregated. It is a very different thing. I the execution of the laws of the United States It is a cassion, a grant, a transfer of political powers, made upon good considerations; made With other peoples who have lone precisely the | tary array ; consistent with a purpose to destroy same thing; and it is no more in its nature rev- | that Government; consistent with the concesocable than a deed of property is revocable at the pleasure of the grantor. The cossion of character, as a nower de facto, and the denial to ditical powers is irreventable in such a case | it of any character as a power de jure. Not only the sovereignty is in fact and in new dividedbecause the people who origins by held all the while he remained President lead to this

that such division should take place and covmanted that it should remain. Whether this is the truth concerning the Constitution of the United States depends upon historical facts, upon the proper deductions from them, and upon the instrument itself. It is certain that the members of the Con-

rention of 1787, the body which framed the Constitution, understood their work, and meant that it should be understood, as embracing an irrevocable cession and grant of certain political powers to a central Government, to be made by a people competent to make it, namely, the people of each State which should adopt the instrument. It is certain that they intended to ask the people of each State to become a component part of a limited nation, and that the great object of all their labors was to discove and embody in this new instrument a mode of constituting such a limited nation without impairing the powers of sovereignty which would remain in the people of each State after the cession of the national powers had been made It is equally certain that the people of every State which adopted the Constitution understood that, as a matter of fact and of law, they did divide their sovereignty by ratifying this instrument; did agree to become, and did become, a component part of a limited and defined nation, whose sovereignty, in respect to the exercise of all the powers committed to it, was thereby created, defined, constituted, and made a supreme power. There is not one of the acts of ratification, by which the State Conventions adopted the Constitution and made it the supreme law for the people of that State, which evinces the reservation of a right under the Constitution itself to renounce their allegiance to it. If any one will take the seces sion ordinance of South Carolina, adopted by her Convention on the 20th of December, 1860, and compare it with her ordinance which ratifled and adopted the Constitution of the United States on the 231 of May. 1783, he will see what the theory of secession was. He will see that the ordinance of 1850 undertook to "repeal" the ordinance of 1789; and then he will see whether, upon any principles of American constitutional jurisprudence, or by anything short of revolution to be made good by successful fighting. the elder ordinance was a repealable instru ment. He will also note, as a curious illustration of the secessionist theory, that the same Convention of 1850 acted upon the idea not

only that their ordinance had absolved the peo-

ple of the State from obeying the laws of the

United States, but that it had operated to trans-

ceded and made over to the United States by

her recorded deeds, for good and valuable con

siderations.

fer back to the State property which she had

From the foregoing paragraphs the reader

will have learned what I suppose to be the true

'theory" of the Constitution, and the one on which the late civil war, on the part of the Government of the Union, depended for its justification. The opinions of so unimportant an individual as myself are not of the slightest consequence to the public, excepting in so far as they may have some tendency to aid in the formation of correct opinions by others. But perhaps I may be permitted to say that since I came to years of discretion I have never seen the least difficulty in understanding what the true view of the Constitution was, which it was the duty of the Federal Government to oppose to the doctrine of secession. Nor have I ever failed to understand that doctrine, or to do justice to the sincerity and strength of conviction of many of those who embraced and neted upon it, and who laid down their lives for it, or imperilled in its defence all that life has to offer for one's country. Whether I learned my theory of the Constitution in "the school of Webster and Story" is immaterial, I did, in my early days, receive my first constitutional teachings in that school, but I know that the studies of forty years, uninfluenced by any living authority with which I was ever in contact, have taught me what the generations who established the Constitution understood it to be, how it had always been administered by all parties before the year 1860, and what the foundation principle is on which the late civil war must rest for its justification, or remain in history without any justification but the maxim that" might makes right." I do not agree with Mr. Hurd that it is of no moment, as he seems to thing, what the framers of the Con- to be involved in a contest of physical strength stitution held to be the true theory of their | between the two sections of the Union. The work. He disposes of their authority in issue was not as it was practically made up, quite too summary a manner. He appears to regard the true nature of the Constitution as a thing of to-day, or as a matter to be determined by each generation for itself. But although, in a physical sense, each generation may have the power to make the Constitution mean anything that they choose to have it mean, a people whose whole political existence has been so much affected by their antecedents. by settled doctrines, by precedents, by historical facts, and by the determinations of their ancestors, and who shall discard all those sources of interpretation, or any of them, and act upon the idea that their Constitution is what they choose to make it to-day, or what anybody shall make it to-morrow, will find themselves at sea, without either rudder, compass, or the stars. Mr. Hurd repeats and adopts the long current misunderstanding of the theory of the Consti-

note on page 54 of his book, he says: The action, or want of action, of Mr Linesha's predecessor was derived from a directiv opposite view of duty, becaute, with his theory of the Union, he could regard the States as each politically capable of warms war, and therefore could not hold pers mally responsible advised capable of the could reach the country of t

his whole policy in regard to secession. In a

Mr. Hurd's reference for this strange misconception is to Mr. Buchanan's annual message of December, 1860, and to Attorney-General Binck's opinion.

It may become my province, at no distant day,

to show what President Buchanan's course was during the trying months which intervened between the election of President Lincoln, in November, 1869, and the 4th day of March, 1861, when Mr. Lincoln was inaugurated. Meaning to introduce here no irritating topics, I will only observe that when Mr. Buchanan's doctrine, with which he encountered secession, is fully developed, it will be found to have been exactly in accordance with the theory of the Constitution taught by its framers, and acted upon by every Administration from Washington's down. To state this doctrine in a few words, as Mr. Buchanan applied it to the anticipated secession of South Carolina it was: That the general Governmenhad no power under the Constitution to prevent a State, by menace of arms, or by physical force, from adopting an ordinance of secession, or from doing any other unconstitutional act on paper; but that it had ample power under the Constitution to compel the Individual inhabitof secession, to obey the laws of the United States, and, if need be, to use military force for the execution of the laws of the Union, and for maintaining possession of its public property, His denial of the power to make aggressive war upon a State in its political capacity, as if it were a foreign nation, did not detract one lota were a foreign nation, did not detract one icta from the power to caferes the laws of the United States upon the individual inhabitants of the State, in spite of their attempt to absolve themselves from the duity of obeying those laws by means of an ordinance of secession. The distinction was not only palpable, but it was of the unnest consequence; for without it, in case it should become necessary to resort to force, the general Government could have no force, the general Government could have no legal basis on which to rest a resort to force, Moscover, this distinction between coercing a state and coercing individuals, after a condition

resources of war, to remove all obstructions to

throughout the Union, including the machinery

of the Confederate Government and all its mili-

s on to it, for the time being, of the belilgerent

war, but he supported that war all his influence and example, after he had retired from office, upon the ground that it was t legitimate and proper exercise of physical force to compel the inhabitants of the secode States to submit to the laws of the United States, and to remove and destroy all obstacles which they or their States had interposed against the exercise of the Federal powers

throughout the whole country.

This statement of the legal and constitutional basis of the war is sufficient to show what is the proper deduction from it in regard to the consequences resulting from the suppression of the Confederate Government and all other obstructions to the full territorial execution of the Federal Constitution. It could not be a legitinate resulting consequence of the war that any State was destroyed or conquered, for that was neither the professed nor could it be the lawful object of the war. All was accomplished that the nature and powers of the Constitution allowed to be attempted when the military array of the Confederate Government and all other physical obstructions to the execution of the Federal Constitution were destroyed or suppressed.

The theories of State suicide, or of military conquest, or subjugation of States, which sprung up as the war was closing, never attained a foothold from which the solid basis of the constitutional theory of the war could be assailed. The Reconstruction acts were in part framed upon the necessity for bringing the people of the States into practical conformity with their normal Federal relations. So far the people of the Southern States did not complain and had no reason to complain of them. What they did complain of was that they were required, as conditions of being allowed again to participate in the benefits of the Union, to give their assent to certain amendments of the Federal Constitution, which not only emancipated their slaves, but which made those slaves voters on the amendments themselves, and on everything else, and that this great revolution in their social condition was carried out by military supervision and power. Now, while it is true beyond all possibility o controversy that it is a most irregular and improper exercise of power for the Federal Government to coerce the people of a State into the adoption of any amendment of the Federal Constitution, two other things are equally true. The first is that, assuming the Reconstruction acts to have been as wrong in principle as any one can make them, they do not and cannot im pair the true legal basis on which the war is to o justified; they do not show that the war was in truth anything but an exertion of physical force to destroy unlawful obstructions to the execution of the Federal Constitution throughout its territory. In the second place, the amendments of that Constitution which the Southern States were made to adopt have re-ceived an amount of popular assent and submission in the States which they most affected. have become so thoroughly and heartily incorporated into the whole structure of society, h lapse of time and by universal acknowledge ment, that the original defect in their inception and in the process of their adoption is t source of danger for the future. The people of the South would not have slavery back again if it were offered to them under the guarantee of the whole world; and as to neuro suffrage, they have learned how to manage it quite as well as those who may have heretofore man aged it for them.

I do not care to discuss at any length the question whether the nature of the Constitution of the United States was a question fit to be determined by the arbitrament of war. I have seen a letter written by that excellent person. the late Richard Cobdon, to President Buchanan in September, 1861, in which he said:

I will not enter on the subject of year demestic tre

Undoubtedly, when we look at the matter ab stractly, it seems a very strange issue to submit to the arbitrament of battle to determine what is the true nature of a written constitution of government. But consider for a moment how sharply the issue was defined, and how it came whether the United States Government could constitutionally coerce a State to remain in the Union. It was whether an ordinance of secession, adopted by a State, could constitutionally absolve its people from obeying the laws of the United States. The secessionists cared nothing for the distinction between coercing a State the assumption that a State ordinance could and did, proprio vigore, release her people from all obligation to be governed in anything by the authority of the Federal Constitu tion. Such an issue, so well defined, as the basis of a civil war, was capable of practical settlement by a physical contest terminating either way. The result, either way, would leave the historical and constitutional argument, or the theory of either party, just where it was tution on which President Buchapan shaped before. But a civil war, upon such a domestic question, ending in the complete triumph of one of the theories, and followed by a universal practical aconiescence in the result, may be properly said to have settled the question, just as effectually and truly as a civil war between two rival claimants to a throne, between whom a whole nation has been divided for a time, has nore than once settled the title of a sovereign. Even Mr. Jefferson Davis, the most thorough believer in the right of secession, now holds that the right can never be practically exercised, He concludes his ponderous book on "The Rise and Fall of the Confederate Government with the following aentence:

In asserting the right of secession, it has not been my wish to inside the describe. I recent set the fact that the war showed it has been my activates, but these and in prosent to be wrong; and, now that it may not be again attenuated, and that the Union have promote the generated or re, it is not in it that the trail, they whole that should be known, so that even not man it recruits and my forever make and them, on the best of fraterial and mixtuit regarding the relative to the states, there may be written on the wide to the China.

This is a manly concession that the war set tled something practically, if it did not then retically. I have only one of servation to make upon it, and I will put it in the form of a query: Why did not Mr. Davis, as a statesman, before he staked so much upon the theory or right of State secession from the Federal Union, foresee that the Southern Confederacy, if it should become firmly established as an independent association of States, would be subject to the same disruption, dissolution, and disintegration to which, according to his political philosophy, the Federal Union had been subject from the time of its creation? And if the Southern Confederacy had contained this vice within itself, in its very nature, what value to the cause of good government and human happiness would it have had in case its armies had triumphed, and the frontier be tween the United States and the Southern Confederacy had been marked by an impassable

He Bidn't Elsturb the Household Hurmany From Sa. While Eath Trace.

Loren Perkins a little unward of five years did the doctrine on which Mr. Buchanan acted powers and exercised all the severebody has clear legal basis of the subsequent civil

LONG WILL THE ANTHRACITE OF PENNSYLVANIA LAST?

To THE EDITOR OF THE SUN -Sir: The exceedingly accurate geologic map of the State of Pennsylvania is blackened with the anthracite coal fields only in the counties of Northumber-iand, Columbia, Luzerne, Schuylkill, and Carbon. A long finger of this deposit of most condensed fuel is painted into Dauphin. Another such finger darkens Lebanon westward. The early use of anthracite coal in the United States is shrouded by traditions. Its use by the Goro brothers, Yankee iron workers, in 1768, is prob ably the earliest authentic record. It was used in the Government arsenal at Carlisle in 1776; and from that time its use was never wholly abandoned by the iron workers of the Schuyl kill River. Its introduction into the furnaces and forges of the Iron manufacturers was exceedingly slow. The founders, accustomed to free burning wood and bituminous coal, were strongly prejudiced against this fuel The secret of its combustion was discovered accidentally at the wire works of Messrs. White & Hazard, in 1812. Slowly, very slowly, the intelligence spread among consumers that the despised "stone coal" was the best fuel in the world. So little was known of the proper method of burning anthracite coal that some Philadelphia manufacturers, who had purchased seven wagon loads of coal, being unable to burn it, resentfully endeavored to have the city authorities arrest Col. Shoomaker, who had sold it to them, as an impostor who sold black stones instead of coal. This was in 1812.

In 1820 the American market took hesitating y 365 tons of this coal. On the 17th day of October the cutput of the Pennsylvania anthracite mines for this year amounted to 21, 199,527 tons. The first deliveries of this coal were by wagon and arks floated down the lower Schuylkill River, if they were fortunate enough to run the rapids numerous on the upper stream. Seven railroads and four great canals are now the

needed outlet of the anthracite fields. The industry of the wealthy manufacturing States of the northern Atlantic slope rests largely on this fuel. Their iron and Bessemer steel manufactures almost wholly depend on Their marine commerce is largely indected to it It cooks in the kitchens and warms the parlors of the oldest and richest States of the Union. It is offered for sale in the little coal yards that are at almost every railroad station in the unwooded agricultural States of the West. So important a factor is anthracite coal in the material development of America, that the waste in its production and the probable duration of its supply concern the whole nation. The questions, What quantities of this fuel were placed on deposit by nature subject to American draft; and, How long at the present rate of waste in production, and the increasing rate of consumption, will it last? are questions of national importance.

Our commerce and industry, ignoring the anthracite deposits of New England and Virginia, recognize but four anthracits coal floids. Their names and areas are: The Southern or Schuylkill, 159 s paare miles; the Middle, com monly called Mihanoy, 92 square miles; the Wyoming or Northern coal field, 194 square miles: the Lehigh, 38 square miles-a total of 483 square miles. Adopting Engineer Schaeffer's different meas-

urement and estimate, the total area of these ficids is 470 square miles, and the thickness of the seams in the Southern field is 75 feet, and in the other fields, 45. A fairer and more accurate division is said to be as follows:

Scharlkill basin. Shamakin distric La nawamma district

There has never been a thorough computation made of the quantity of coal in the anthracite fields as a whole, but of the contents of large tracts estimates have been made. The Reading Railroad Company owns 149 square miles of the anthracite ian is. It is understood in Pennsylvania that this corporation ordered, some four or five years ago, one of their engineers to make a thorough examination of their bands, and to compute their contents. The coawas classified. The large seams in good condiion were called No. 1. The seams from four to six feet thirk were classed No. 2. The smaller seams were classed as No. 3. Seams thought to be unreliable were not computed. The result of this measurement and estimate gave to the three classes of seams a total content of coal in

4, (7) (630,000) Tefat According to the computations of the Readand coercing individuals. They made the ing Company's engineers 268.000,000 tons, issue thamselves, and they made it upon more than one-half of the coal their land contains, is deposited in seams less than six feet thick. A computation made by multiplying the yield of coal per square mile, per fact in thickness of the seams—these figures obtained from actual results in the worked-out portion of the field-by the area of the fields, and this result by the thickness of the seams, gives practical estimate of the amount of marketable

coal originally in the fields, as follows: Total available contents of the fields ... 0.782, aspire

Computations of the coal contained in a field are usually made on the supposition that all he land included within the outerop of the lower seam is underlaid with coal, and that all he seems are horizontal and in workable shape, while the known facts indicate that all the seams are faulty and stand at all angles from zero to the perpendicular. It is well known that in all the anthracite coal fields the smaller seams are comparatively worthless, being irregular and faulty. Over large tracks they are not workable, and e sewhere they are exceedingly faulty, so much so as to render the remunerative working of them even many years hence, when the price of coal will b higher, very doubtful. We do not know the condition of the coal in any of the deep basins now considered as reserves for generations to draw their fuel from. There are so many elements to be considered and allowed for, that no calculation of the contents of these basins is worthy of consideration. In the deep, narrow basins the contraction of the strata is probably so severe that the resultant thrust has crushed much of the coal. No mining engineer can ententate the extent of unseen faults, nor can be allow for geological disturbances he cannot see. The probabilities are that tens of thousands of acres of the loom coals in the deep

basins are utterly ruined. The assertion that seven-tenths of all the ual that has been dug out of the anthracite mines of Pennsylvania is the yield of one great seam called the "Mammoth" is probably within the truth. The "Mammoth" is one of the lower scams. The lower scams produce by far the best coal. They are generally white ash, and on anticlinal slopes, but little subject to faults. The "Mammoth" and the two workable seams below it have produced at least nine-tenths of the anthracite coal that has been sent to market.

There are, however, facts that reflect disgracefully on the management of the mines. which concern consumers as well as producers of anthracite coal. From the seams already worked out less than one-third of the estimated quantity of their contents has been sent to market. Of the two-thirds loss, much is elate and taults; but by far the largest proportion of the loss is due to wasteful mining, breaking up and sixing the coal, and the resultant loss of fine coal thrown on the dumps. Bear in mind that this has been the practical result in working the tunkest, must valuable, and the cheapest to mine of all the seams.

The American system of mining, which has been stendily practical in Pennsylvania, is the obsolete English method known as "pillar and breast." It is the most wasteful method known, and the one that requires the least skill. It consists of working out the coal in rooms or "breasts" turned up the dip of the seam from

the gangway or headings. The "breasts," or dip seams, are connected with the gangway by

chutes, through which the coal slides into the mine cars. The "breasts" are separated from the gangway by a heavy pillar of coal, and from each other by pillars varying in thickness from the breadth of the "breast," which is generally thirty feet, to one-half that breadth. The pillars between the "breasts" support the overhanging roof or rock. Only in mines with exceptionally good roofs, approaching self-support, is any of the coal left in these pillars eventually taken out. Another lamentable waste, due partly to the system of "pillar-andbreast" mining as applied to pitching seams, is the tendency of the body of coal, if subject to faults, to alip and slide down into the breasts In pillar-and-breast mining on pitching seams, such portion of the breast as has been worked out is kept full of loose coal. The miner stands on it while working at the face of his breast, The solid coal will sometimes commence running in these chambers. From that instant they are inaccessible, except at hazard of life, and large quantities of coal are abandoned in them. A third factor in the wasteful administration of the anthracite mines has been, and still is, the rejection and ultimate loss of enormous quantitles of uncut coal because it was or is, interleaved with slate, that marred the beauty of the coal and made it more costly to mine. The sharp competition of rival districts precluded the possibility of working this coal to a profit. The custom of "drawing" the gangway pillars of mines about to be abandoned has buried enormous quantities of this class of

coal beyond hope of recovery. Another factor that will disagreeably suprise the mining engineers of Pennsylvania, when they are forced to apply it to their calculations, is the crushing force of the weight of the mass of rock lying above the deep basins whose veins have been worked out. The three workable seams of the lower coals have, combined, an av erage thickness of about forty feet. These seams being worked out around the rim of basin leave an inverted section of a cone, whose sides fiare out sharply and have no solid support, as the forty feet of coal has been dug out or long since wasted. The unsupported flaring sides of this cone gradually, or with mighty crash, break off, and instead of a cone with side supported, there is a roughly oblong mass of rock, having almost perpendicular sides, that have but little support, standing solidly on the unworked basins far below. The probabilities are that whenever the deep basins are opened by gangway from the bottom of the shafts, and chambers turned for the miners to work in. the immense weight of the rocks above will promptly crush the piliars into powder and close the mine.

The Reading Company's engineers computed that in the 149 square miles of coal land that company owned were 4.475,000,000 tons of coal, deposited in

First-class seams.... Second class seams... Tuird-class seams... 1 800 (80) OF 1 550 (80) 00 1 (923 (80) 00 It is a disgraceful fact that not one-third of this enormous mass of coal will ever come to market, unless there be prompt change in the method of mining. Pennsylvania mining englneering science assumes that of the coal in those first-class seams only one-third can be shipped, of that of the second-class only onequarter can be marketed, and from the thirdlass only one-sixth can be shipped. This computation of yield is unfairly based on the results obtained in working the seams above the 1,000 feetdeep levels, and on anticlinal slopes where the seams are but slightly disturbed. Unfair as it is, it reduces the available coal underiving the Reading Company's property from 4.475,000,000 tons to 1.189,000,000 tons, of which 566,000,000 tens is deposited in seams of less

than six feet in thickness. What is said of the Reading Company's property is true of all the anthracite region. That ompany's mining is selected solely for convenience of illustration. Now, we have come to the question. How long will the anthracite coal of Peansylvania last? An experienced mining engineer, after a thorough examination of the subject, has declared that for every square mile of coal area worked out there has been mined about 151,000 tons for every foot in thickness of the seams. This computation allows for faults, denuded anticlinais, &c. Applying this measure of 151,000 tons per foot thickness of seams per square mile to all the anthracite coal fields, and thickness is but thirty fact will not viold as much per foot in thickness as these where the sixty feet thick, it will be seen that the marketable contents of the different fields are as follows:

Total contents available 8.274 000 000

About 400,000,000 tons of coal that have been already mined must be subtracted from this total, leaving 2 873,680,000 tons now available if the present system of mining is adhered to, These figures may provoke denial from Pennsylvania mining engineers, one of whom in 1872 publicly stated that the anthracite coal fields would produce 13,180,553,000 tons. But the future will probably show that the above estimate is far above the truth. The question. What is the condition of the coal in the deep basins? irritatingly obtrudes itself. Who know the condition of the coal in those unopened workings? This much is absolutely certain: they are known to be more disturbed than in the levels above the 1,000-feet-deep workings. the folds in the stratification are closer, the faults are more numerous, the coal is crushed to a greater extent the weight of the unsupported upper masses will further crush it when mined, and the Mammoth and the two largest seams below that famous seam are in the lowest depths of the basins. All that is known of the lower coals and of the comparative worthlessness of the smaller seams, whether high or low, opposes the larger and favors the smaller esti-

mate of the marketable contents of the fields. In estimating the duration of the authracite coal fields, the annual consumption of the Unite ! States must be considered. The largest quantity produced in any one year has not reached 25,000,000 tons. It is a well-founded belief among the owners and operators that, taking into constderation all ordinary contingeneries, the present expanity of the mines is generies, the present enearity of the mines is about 25 mm 50 tens. If pushed to their utmost it is probable that 20 00 000 tens of coal could be delivered per year. At present there is no domain for this amount but as the scanning increases rapidly in population, its industries correspondingly increases, wealth augments, and the domaint for antiractic step fly increases. Assume that 30 000,000 tens will see in the amount of antiractic. Dividing this among the six productive floids, they will be exhausted as follows:

But if production is pushed to 20.000.000 tons per annua, the times tower seams iving above time deep basins with specific 20.000.000 tons per annua, the times tower seams iving above time deep basins with specify be exhausted, and when that occurs the production will full off rapidly, and it is doubtful if it can be forest to the markets wild of designable roads. In less than forty years, if can be produced at the rate of Promo Mottons per annual, anthracte will be an article of hydry, and the produced at the rate in the markets will exhaust the produced at the rate of Promo Mottons per annual, anthracte will be an article of hydry, and the produced at the rate in the markets will exhaust the produced of this best of times country from the sac of this best of times.

The special the vary-rations controlling the land. Through instaken economy or lask of skill, they resolutely refuse to adopt the advanced mining methods how in successfuluse in fanchant Germany and France, which enables the minor than the miners. In our destant Sates and Territories gold and sliver leave, with almost vertical dip, are absolutely closured and any of the successful the minor and these conditions at the time of the successful the minor of the part of Gowyranout to seek an as thick as the famous Mammerh can seem.

It executes the result of enhanced darks on the part of Gowyranout to see an at a time and the results of the part of Gowyranout to seek a market minor for the part of Gowyranout to seek a market minor for the part of Gowyranout to seek a market minor for the part of Gowyranout to seek an as thick as the famous and market our military Minister discovered with support the standard of the part of Gowyranout to seek an at this conditions of the part of Gowyranout to seek an at the famous that the property is conditioned to the part of Gowyranout to seek an at the part of Gowyranout to seek an at the same of the second market of the part of Gowyranout to seek an at the part of Gowyranout to seek an at the part of Gowyranout to But if production is pushed to 30,000,000 tons

FARENELL TO THE BOSPORUS.

Congressman Cox Drinking Joson's Health in Wine of Ismet on the Glant's Mountain.

CONSTANTINOPLE, Sept. 15 .- One of the pleasant exeurations planned by our friends at Therapia was to the Giant's Mountain, opposite our temporary home with the Consul, Mr. Heap. The mountain is higher than it seems, and also steeper, so that much preparation is made for the ascent. Besides, as we go through an encampment of Turks on the Asiatic side, we propose for safety a large party. Major-Gen. Wallace, our Minister, with his revolver, was commander enough, and the wife of our Consul acted as commissary. Clever English naval officers brought in a little steam launch, and with the wives and others-young men and maidens-of the vicinage, we start across the Bosporus, a gleeful party. Prof. Grosvenor is along to give us the classic associations. On arriving upon the other side we perceive our conveyance. It is drawn by white oxen. It is called an araby. It is a springless, heavy, lazy concern, whose wheels are at every angle to the exic, and whose parts are tied together by ropes and wires. It will hold ten, but has no seats. We improvise cushions for the ladies out of shawls and conts, and the Turkish driver starts the team with his goad. It is an antique, and fills us full of effusive fun. The araby has once been gilded and carved. I apostrophize it:

I know not, I care not, if gill's on that wagon, I'll follow its fortunes if it leads to the-Dragon.

It was a hot afternoon; and with only one equipage it looked as if many of us would have to walk the four miles to the summit. However, we found a rickety conveyance and a horse with a yoke, with some red cushions in habited by fleas. These insects kept us lively, and enabled us to enjoy the ruts of the mountain road. The road was over a plain-where old plane trees, some of them thirty feet round and hollow, kept guard with soldiers and junketers around them; for this plain is a favorite resort for Turkish families. Here, near one of resort for Turkish families. Here, near one of
the palaces, is the spot where the Suitan received the Empress Eugénie, and had the grand
review of soldiers in her honor. Through an
avenue of trees we slowly wended our way, following the brisk walk of the oxen. We met
another araby of very regal style. It was an
"Araby the bleat," compared with ours. It had
an Effendi, with three Turkish beauties done
up in white muslin. It was a bridal party on
a wedding tour for the third wife. One woman
looked like a mother-in-law, so cross she
seemed, when we gazed at her behind her
fleecy yashmak. There were three wives, so
the question of mother-in-law became compilcated. However, it was a pretty sight, and one
peculiarly Asiatic.
SIGHTS THE GIANT'S MOUNTAIN HAS LOOKED ON. IGHTS THE GIANT'S MOUNTAIN HAS LOOKED ON.

cated. However, it was a pretty sight, and one peculiarly Asiatic.

SIGHTS THE GIANT'S MOUNTAIN HAS LOOKED ON. At length we are at the top of the Giant's Mountain. We find his grave and a cemetery there under the shadow of trees, and a mosque and minaret. Some dervishes are there. They permit us entrance within the holy places in our stocking feet, and for a consideration. It is seems that this is the burial place of many soldiers who fell here in defence of Islam. It is also the spot where a holy pligrim or priest is buried. His tomb is covered with small places of rags, signs of a gool future and good health to those who leave them. We ascend the narrow, dark stairway, up the stony steps of the minaret. Every object in view from this point is of interest. Under our eye, to the west and across the blue water, the Latin crusaders under Count Raoul enganced, until they crossed into Asia. There too, Godfray de Bouillon had his 10,000 cavairy and 60,000 infantry, ranging along the environs of the Propontis, from the bridge of Cosmedion, the point of the triangle of Constantinopie which meets the Goiden Horn, to this uppor point of the Besporus. Here are old earth works made by the French engineers for the Turks against the Russians in the last century; and there are the Phancos (lighthouse), and the promontories on the sea. Turning our back on the Besporus and looking to the east or south of east, far off over the Sea of Marmora to the cerulean mountain curves, we may see, without fancy or class, the veiled beauty of the ragged deflies which streams and torrents have made. Through them also came Alexander. Out of them came Orchan, the son of that Othman who founded the dynasty of the Turk, laving stege to Nicomedia, new Ismid, to which English ent-rprise and capital have made a raifroad. Here began the march of that army, whose interess were lavincible. They rested not, until the beginning of the fourteenth century found them crossing into Europe, under the Tundertoot Bayazid, scattering the comentaries ago, at th

ore from this minarct, as well as verifies of history. Do you see those white, low houses beyond that vilear? There is the authentic spot where the harpies tortured Phineus. But move all in elevation and interest is the hill on which we stand, where the Argonautic heroes brought each their handful of soil, until the heap arose and the monument topped it in henor of the expedition which makes the name of Jason immortal. The authenticity of these places, made familiar in the muse and tradition of Helas, is conched for by no less a scholar than our Frof. Gresvenor, who has made them seem at least absolute verifies by confirmations of which I may write hereafter.

"Do you not know," said Gen. Wallace, warming with these associations, "that there is a sensible view of Jason and his search after the golden floose? There were golden sands in the mountain streams of that Eldorado. Not being after in gathering the golden dust, like our New Mexican miners, these Argonauts foaked their flooses in the water, which was stirred into nurllerousness, and when the fleeces dried flailed out the precious particles."

A TIME, AND TIMES, AND THE DIVIDING OF A A TIME, AND TIMES, AND THE DIVIDING OF A

A TIME, AND TIMES, AND THE DIVIDING OF A TIME.

From this minaret can be seen the point of Heracles, which was sighted by Peter the Great 182 years ago day before yesterday, as he sailed down the Black Sen, under much Turkish distrust and against much opposition, to visit the city of Constantinople, which his descendants have not failed to cover over since. Upon this visit, and the longing of Russian ambition, have hung many great wars only exceeded by those symbolized in the Turkish or Christian legend whose "four angels, which were loosed from the great river Euphrates," has been interpreted to mean the rush of the Turkish hordes upon Europe. It was made out in some of the wise solutions of the Revelations" of John the Divine, that the description of the eavalgy, colors and the "power of their tails," applied to the Mohammedian army; and that (Revelation ix, 15) they "were prepared for an hour and a day and a month and a year" was assumed, in some catalistic way to mean a period of 391 years and two weeks. This was supposed to concur with the prediction of Constantine. As the Turks took Constantinople on the 25th of May, 1453, rou must add to this the 391 years and two weeks, and you will have 1844 of our era, which is the year 1200 of the Turks and 1200 is the number of years fixed for the duration of the Turkish rule to Europe. So that in 1814 the power of the Sulfans should have ceased, but it did not. It will be many yours yot is for the set of the personal health and life at St. Petersburg and Mesecow, he may possibly help to cipher out the revealed by the house of the mark which for each share the Cyanian isless about which Greek narratives are horrifle and cartulous. Upon one of them, which you may reach in calm weather on foot, is a white marble column. Its carrying is not a little marred by time and flood. It was onc TIME.

daughter. Twenty of us qualf the wine of Ismet and drink to the health of our departed friends. Jason. Hercules, and the rest, not forgetting the sovereigns of our respective countries. Then tearing off some fragments from our handkerchiefs, we place them as the customary votive offerings upon the tombs of the saints. Then mounting our araby and moving at dusk down the mountain, through the shadows of the trees of the Turkish camp, where many dusky figures are seen praying toward Mecca, and after some gentle and profane dalliance as to backsheesh with the natives who surround our beat, we rejoin the Isanch, and end our pleasure at the wharf, where our flag is supposed to fly for our protection.

is supposed to fly for our protection.

Dionnaire's pretty wife.

What an immense mansoleum of the past are these hills and incuntains! What a museum could here be collected to illustrate these generations of moving millions along these shores! The Turks have an archwological museum here, which we visited. It might well be thought that Turkey, having dominion over so many ancient lands, would have a splendid collection of antiquities; but richer and more curious nations have the best of the Egyptian, Assyrian, and Greek disinterments. Just now Hormuzi Rassam—who has been thirty years digging about Assyria for the British Museum, and who has not limite! himself to Babylon—has scoured the whole Tigro-Euphratean under country with wonderful results. These are just being made known. Other wonders are coming to light, it is an era of archeology here and hereabouts, and although this museum is a poor specimen, it is a beginning in a good location. There is a big Assyrian god of hideous aspect upon its poren, and pienty of Grecian torsos and Roman Emperors and broken things inside and about, Dionysius, our guide, takes us by the hand, with a solemn mien, and points to a tomb, within whose marble case are the bas reliefs of two persons, and the inscription in Greek says that these are Dionysius and his wife. He had lines of anger upon his face, while I may say for her, after two thousand years, that, without foar of her deceased lord and master—

Ne'er did Greeian chiest trace

Anymph, a natad, or a grace

Of tairer form or loveller face.

We had some pleasantry at the passionate, as noted of Dionysius with the attendant, who DIONYSIUS'S PRETTY WIFE,

We had some pleasantry at the passionate aspect of Dionysus with the attendant, who knew our guide's name to be the same. We had our fun in time, as the Irishman said about getting in his playfulness at the buil in the pasture tefore he landed over the hedge; for I had no sooner proceeded to sketch the little mummy in a glass case with its swelled head and cracked skull, old rags and funny oyes, plastered with white, before in rushed the ouside warder, and without either dignity or sense ordered me to quit making images and to destroy what I had made! Well, as this wasonly a scientific exercise and not in a holy place, and as I had violated no rule of Mohammed or the Koran, I held on to my sketch.

MUSIC BY MOONLIGHT ON THE BOSPORUS. MUSIC BY MOONLIGHT ON THE BOSPORUS.

place, and as I had violated no rule of Mohammed or the Koran, I held on to my sketch,

Music BY MOONLIGHT ON THE BOSPORUS,

Yesterday we were summoned again by our
friends to go to Therapia for a last enjoyment
of the hospitalities of the Legation. To these
were added something unusual in this locality. It was a successas a scene; for therewere no harsh forcek or Turkish voices in the
seronade. The Austrian Minister, Baron
Hirschfeld, was the projector of this Venetian
entertainment, this carnival of the Bosporus,
The quay was lined with spectators by 90 clock,
and the stream and bay with caques
and illuminated barges. The names of
the musicians sound so that one cannot mistake them for other than Italian,
German, and Polish. The rockets and colored
lights, and the thousand boats full of the beauty
and chivairy of the upper Bosporus, followed the
steam tugs and larger caiques as they moved
about from Bayukderch to Therapia, giving to
the waves the melodies the waves returned. Instrumental music thrilled on the clear air and
moonlit stream, and aided the effect. Altogether, it was unique. It was our larewell experience in these charming spots. Was not this
indulgence of Occidental and Orphe luxury under Oriental skies a fit ending of our rugged
journey from the Boreal North? These say
songs of the clegant Embassies and their retainers—how much they contrast with the rough
days of Crusader and Paynim, of sword and
climiter, of cross and crescent. How they contrast with the cleder days of sea fights of Genoese, Venetian, and Turk in those bays, now illuminated by American petroleum, and choral
with soft voices on the stilly air.

But we must be up and away. Soon we shall
leave for Judea. We set out to-morrow for
Smyrna and Ephesus. Thence we go to Beirut
and Damaseus, thence to Joppa and Jerusalem,
and thence to Exypt, and then, we hope homein
time for the meeting of Congress. There is no
doubt that there is a revolution made by "the
Coloneis," going on in Exypt, The janisaries
are not all d

THE PACULTY AND THE JUBILER. The Differences Between Them and What

Two Yale Alumni Say of Them. The Yale Jubilee and the Yale Faculty are ut. A few years ago the New York alumni were wont to go to New Haven to hold their Thanksgiving jubilee. When the faculty made objection to their doing this, the alumni transferred the scene of their yearly revelry to the banquet hall of Delmonico's. This year the sion to the students of the college to visit New

York on that occasion. A Yale alumnus living in New York was found yesterday in a down-town office. He was asked why the faculty did not approve the jubilee.

He laughed. "The truth is," he said, "I suppose the old gentlemen don't quite relish seeing themselves as some others see them, and you know that is the way we represent them at the jubilees. It's always been the custom to have two or three of the professors at our jubilees, or at least as good representations of them as wigs and taint and spectacles could make out of some of the boys with a mimetre taient. We've had species from these old fellows, and the sentiments expressed haven't always been just what he origi-nal models would like to father. One of the pro-fessors in particular took sore offence at our caricature of him, and so when the College Gies Chub asked permission to come to New York at our Thanksgiving jubiles this year permission was withheld."

"Did this unfavorable sontiment of the faculty

our Thanksgiving jubice this year permission was withheld."

"Did this unfavorable sentiment of the faculty cause you to change your programme?"

"Well (slowly), we did modify our programme somewhat. We had a chair of theological students, and our Chairman, or Moderator, as we called him, was to the guise of an angent clergyman of most digatified and orthory a men. Our whole session was devout in its tone, and, as you may remember, we had the old chapel pulpit set up to grace our services. This I understand, off-inded the faculty more than ever, and I'm afraid we never shall quite seatorm to their idea of what a jubilee ought to be, This year they even pledged the febross who came to town to see the Princeton-Harvard football match on the day of the jubilee not to attend the wickel jubilee. What the faculty would like is Greess plays but we'll leave that sort of recreation to harvard."

Another ain manus was found who appeared to look at the jubilee as the faculty look at I. He had been present at the jubilee of '81 and had been disguisted.

"It isn't at anistrange that the faculty should be down on these orgies." he added. They are no credit to the coinere, From weat is jubilished about the performances, and from what is not fit to be published, but is greated quickly and wider en any by worl of mouth, one would not have a very dignified about A Yale alumines. The carriedures of including and vulgar and stund buffiscency.

"Would the faculty be reconciled to any labelies in which there was levely?"

"Certainly. I don't think the professors are down on good fun or age of froite. Some at the jubilees have been bright and converted to the surface of the faculty and wind the reach that he professors are down on good fun or age of froite. Some at the jubilees have been bright and cover and anishing, and only needed to be rid of one or two vulgar features to be precentable. I do it the state they do object to one which is low an it beds the faculty and the institution up to ridicale.

faculty and the institution up to relicula A Tale with a Mice Moral.

From the Rinhester Express. A Rochester girl of poor but honest parants She sat done in the seat directly in root post by one of the millionaries of the city ment was present. In could scarces of the leaned over and assert in roll size over the leaner of t

Singular Hunting Accidents Charles Brawnell, aged 17, of Alvien, Nestantiy alled by the application disclosing while hunting.

Just for fun, while hunting. L. J. Advise East Providence, R. J., this Washestin of pure abouting. They must save but the Within Know and Notice distributed for went bunting this kints, the sare Aver-motion of his particles that or game and